

CLAIMS

1. A pumped helium circuit comprising a compressor (14) with a high pressure port (16) and a low pressure port (18) each connected to a supplied equipment (61,63,65,67) to respectively supply compressed helium to, and receive compressed helium from, the supplied equipment; a pressure relief valve (12) operable to link the high pressure port to the low pressure port in response to a predetermined pressure differential; a non-return valve (13) located between a low pressure side of the pressure relief valve and the supplied equipment; and means for preventing oil carry-over from the compressor to the supplied equipment, characterised in that said means comprises means for preventing oil leaving the low pressure port and travelling towards the supplied equipment.
2. A pumped helium circuit according to claim 1, wherein said means comprises an oil trap located in the circuit between the low pressure port and the supplied equipment.
3. A pumped helium circuit according to claim 1, wherein said means comprises an oil adsorber located in the circuit between the low pressure port and the supplied equipment.
4. A pumped helium circuit according to claim 1, wherein said means comprises a gas reservoir located in the circuit between the low pressure port and the supplied equipment.
5. A pumped helium circuit according to claim 1, wherein said means comprises a combined gas reservoir and oil adsorber located in the circuit between the low pressure port and the supplied equipment.

6. A pumped helium circuit according to claim 1, wherein said means comprises a pressure actuated switch in the circuit between the low pressure part and the supplied equipment, said switch being operable to stop operation of the compressor in response to a gas pressure at the low pressure port falling below a predetermined value, the predetermined value being less than the minimum pressure at the low pressure port during normal operation.
7. A pumped helium circuit comprising a compressor (14) with a high pressure port (16) and a low pressure port (18) each connected to a supplied equipment (61,63,65,67) to respectively supply compressed helium to, and receive compressed helium from, the supplied equipment; and a pressure relief valve (12) operable to return compressed helium from the high pressure port to the compressor in response to a predetermined pressure differential; characterised in that the pressure relief valve is connected between the high pressure port and the compressor, independently of the low pressure port.
8. A method for preventing oil carry-over from a helium compressor (14) to a supplied equipment (63, 67,61,65) comprising the steps of
- supplying compressed helium through a high pressure port (16) to the supplied equipment;
 - receiving compressed helium through a low pressure port (18) from the supplied equipment;
 - operating a bypass relief valve (12) in response to a differential pressure exceeding a predetermined value, thereby allowing oil-laden compressed helium to flow from the high pressure port to the compressor,
- characterised in that the method further comprises the step of preventing oil from the oil-laden compressed helium from travelling from the low pressure port to the supplied equipment.